MMM-A-105
June 23, 1962
SUPERSEDING
(See section 6)

FEDERAL SPECIFICATION

ADHESIVE AND SEALING COMPOUNDS CELLULOSE NITRATE BASE, SOLVENT TYPE

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification establishes the requirements for cellulose nitrate based adhesive and sealing compounds that are dissolved or dispersed in organic solvents (see 6.1).

1.2 Classification. The adhesive and sealing compounds shall be of one grade and of the following types, as specified (see 6.2 and 6 5.1):

Type I - Label adhesive.
Type II - Adhesive and sealer, general purpose.

2. APPLICABLE DOCUMENTS

2.1 Specifications and standards. The following specifications and standards, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

NN-P-530 - Plywood, Flat Panel.
QQ-A-250/5 - Aluminum Alloy Alclad 2024, Plate and Sheet.
TT-I-559 - Ink, Marking Stencil, Opaque, for Porous Surfaces (Wood Boxes, Fiber Cartons, etc.).
TT-W-572 - Wood-Preservative; Water-Repellent.
PPP-B-566 - Boxes, Folding, Paperboard.
PPP-B-585 - Boxes, Wood, Wirebound.
PPP-B-591 - Boxes, Fiberboard, Wood-Cleated.
PPP-B-601 - Boxes, Wood, Cleated-Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock - Corner.
PPP-B-636 - Box, Fiberboard.
PPP-B-640 - Boxes, Fiberboard, Corrugated, Triple-Wall.
PPP-B-665 - Boxes; Paperboard, Metal Stayed (Including Stay Material).
PPP-B-676 - Boxes, Setup.
PPP-C-96 - Cans, Metal, 28 Gage and Lighter.
PPP-P-704 - Pails, Metal: (Shipping, Steel, 1 Through 12 Gallon).

Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civilian Agencies).
Fed. Test Method Std. No. 141 - Paint, Varnish, Lacquer, and Related Materials; Methods of Inspection, Sampling, and Testing.
Fed. Test Method Std. No. 175 - Adhesives: Methods of Testing.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402.

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge at the General Services Administration Regional Offices in Boston, New York, Washington, D.C., Atlanta, Chicago, Kansas City, Mo., Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, Wash.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specifications:

MIL-C-5646 - Cloth, Cotton, Airplane.
MIL-C-22543 - Cleaning Compound, Water Emulsion.

Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or requests for proposal shall apply.

Federal Hazardous Substances Labeling Act:

(Copies may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington D. C., 20402.)

U.S. Department of Commerce:
CS35 - Hardwood Plywood.

(Copies may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C., 20402.)

3. REQUIREMENTS

3.1 Data. No data is required by this specification or by the applicable documents referenced in section 2, unless specified in the contract or order (see 6.2).

3.2 Material. The compounds shall be uniform solutions or homogeneous dispersions of cellulose nitrate of different viscosities and organic plasticizers in relatively low boiling organic solvent mixtures, so formulated as to meet all the requirements of this specification.

3.2.1 Solvent toxicity. The manufacturer shall certify in writing that each of the organic solvents used in the compounds has a threshold limit greater than 100 parts per million. The threshold limit value of any solvent shall be that published by the American Conference of Governmental Industrial Hygienists (see 6.6 and 4.4.1).

3.2.1.1 Benzene and chlorinated solvents. When tested as specified in 4.5.6, there shall be no benzene or chlorinated solvent present in the compound.

3.3 Properties. The compounds shall conform to the applicable requirements specified in table I.

TABLE I

Property	Requirement		Fed. Test Method Std. No. 141	
	Type I	Type II	Method No.	Par. No.
Nonvolatile matter percent	19 min.	25 min.	4041	-
Viscosity, poises	22 to 27	69 to 89	4271	-
Air dry time, tack free, max. (0.001 to 0.002 inch dry film thickness)	5 minutes	5 minutes	4061	-
Peel strength, pounds per inch of width, min.	1/	2/	-	4.5.2
Flexibility after 4 hours 121° C. (250° F.)(1/8 in. mandrel)	No cracking or flaking		3/ 6222	-
Flexibility after 30 minutes -25° C. (-13° F.) (1/8 in. mandrel)	No cracking or flaking		-	4.5.3
Color	Not darker than No. 3 Hellige		4242	-
Cellulose nitrate polymer	Positive		-	4.5.4
Blushing	Not more than slight streaking or discoloration		-	4.5.5

1/ Fabric to wood bond.
2/ Leather to leather bond, both dry and after one hour immersion in water.
3/ Type I, apply 0.002 inch dry film; type II, apply 0.004 inch dry film.

3.4 Water resistance. When immersed in water for 24 hours at 25° C. (77° F.) as specified in 4.5.7, the cellulose nitrate film shall show no sign of cracking, flaking, or loss of adhesion. A very slight softening or loss of clarity shall be acceptable, provided complete recovery is evident after the film has been conditioned one hour at room temperature.

3.5 Application to brass (type II, only). When tested as specified in 4.5.8, the compound shall form a tough, adherent film on brass. The film shall be difficult to remove from the panel and shall strip off in a ribbon when scratched with a sharp knife blade. The brass, after removal of the cellulose nitrate film, shall show no sign of chemical attack or corrosion.

3.6 Cold stability. When stored at -25° C. (-13° F.) for 16 hours as specified in 4.5.9, the compound shall show no sign of gelation, separation, sedimentation, or any other deterioration.

3.7 Application to labels (type II only). When tested as specified in 4.5.10, the compound shall be easily applied by brush and shall cause no decrease in the legibility of the label printing. The label shall adhere firmly to each of the test panels; the separation of insignificant areas of a label from a panel shall be acceptable. There shall be no decrease in the legibility of a label after a weight has been applied to the overcoated label for 24 hours at 25°C. (77°F.)

3.8 Resistance to blocking (type I only). After being subjected to 66°C. (150°F.) for 24 hours as specified in 4.5.11, the labeled panels shall show no sign of adherence to each other.

3.9 Accelerated weathering (type I, only. When subjected to 72 hours' exposure in a weather machine (without water spray) as specified in 4.5.12, the overcoated labels shall show no sign of softening, cracking, flaking, loss of adhesion, or appreciable decrease in label legibility.

3.10 Federal Hazardous Substances Labeling Act. Marking of containers shall comply with the requirements of the Federal Hazardous Substances Labeling Act, 15 U.S.C. 1261.

4. QUALITY ASSURANCE PROVISIONS

4.1 Inspection responsibility. Unless otherwise specified by the Government, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.2 Lot formation. For purposes of sampling, a lot shall consist of a manufacturer's batch. A batch is defined as the end product of all raw materials mixed, blended, or processed in a single operation.

4.3 Quality conformance samples.

4.3.1 Samples for tests. Two one pint samples of the compound shall be selected at random from each lot either during or after the filling operation. Each sample shall be placed in a separate, clean, dry container. The container shall be sealed with a tight cover and marked with the lot number, the sample number, and the product identification.

4.3.2 Samples of the end item and preparation for delivery. Samples for the inspections specified in 4.4.2.1 through 4.4.2.4 shall be selected at random from each lot in accordance with MIL-STD-105 and table II. The lot size shall be the number of unit containers for inspections 4.4.2.1 through 4.4.2.3, and the number of shipping containers for inspection (see 4.2.2.4).

TABLE II

Inspection	Inspection level	Acceptable quality level (AQL)	Sampling unit
End item (4.4.2.1)	S-2	4.0	Filled unit container
Filled unit containers (4.4.2.2)	S-2	2.5	Filled unit container
Net contents (4.4.2.3)	S-2	-	Filled unit container
Shipping containers (4.4.2.4)	II	2.5	Shipping container fully prepared for delivery (just prior to closure

4.4 Quality conformance inspection.

4.4.1 Inspection of samples for tests. Each sample selected in 4.3.1 shall be examined and tested to determine conformance to all the applicable requirements of section 3. The manufacturer shall certify in writing that the compound to be supplied conforms to 3.2.1. Results of multiple specimens (representing one sample of the compound) submitted to the same test shall be averaged to determine conformance of the sample to the applicable requirement. Nonconformance of a sample to a single requirement shall be cause for rejection of the lot represented by the sample.

4.4.2 Inspection of the end item and preparation for delivery. The applicable samples, selected in accordance with 4.3.2 and table II, shall be examined for the defects classified in 4.4.2.1 through 4.4.2.4 and to determine compliance with all the other applicable requirements of section 5. If the number of defective samples exceeds the AQL specified in table II, the lot represented by the sample shall be rejected.

4.4.2.1 End item. Examine the end item samples for these defects: foreign matter, lumps, gelation, separation, sedimentation, obnoxious odor, or improper color.

4.4.2.2 Filled unit containers.

Examine	Defect
Material	Not material required.
Construction	Not size, type, or class specified. Closure not as specified. Evidence of leakage.
Marking	Warning labels or marking missing, omitted, illegible, incorrect, incomplete. Not in accordance with contract requirements.

4.4.2.3 Net contents. If the average net contents of the samples selected in 4.3.2 is less than the amount specified in the contract or order, the lot represented by the sample shall be rejected (see 6.2).

4.4.2.4 Shipping containers fully prepared for delivery.

Examine	Defect
Intermediate packaging	Not level required by contract or purchase order. Material or construction not as specified.
Packing	Not level required by contract or purchase order. Materials or construction not as specified. Any nonconforming component, incomplete closures, inadequate strapping, bulged, or damaged containers.
Count	Less than specified or indicated quantity of primary containers per shipping container.
Markings	Warning labels or marking missing, omitted, illegible, incorrect, incomplete, or not in accordance with contract requirements.

4.4.2.4.1 Shipping containers fully prepared for delivery shall also be examined after closure for closure defects. This inspection 4.4.2.4, is not necessary if the unit container is also the shipping container.

4.5 Test methods.

4.5.1 Test conditions. Unless otherwise specified herein, tests shall be conducted under the atmospheric conditions specified in Fed. Test Method Std. No. 141.

4.5.2 Peel strength.

4.5.2.1 Type I compound. Apply a heavy brush coat of the compound to one side of a one by eight inch plywood panel conforming to MM-P-530, group A, CS35, birch, type I, grade B-B, water repellent, preservative treated in accordance with TT-W-572, type I or II, composition A.

A one by 12 inch strip of cotton cloth conforming to MIL-C-5646 is then placed in contact with the plywood panel, as specified in method 1041.1 of Fed. Test Method Std. 175. After drying for 24 hours at room temperature, the peel strength shall be determined as specified in method 1041.1 of Fed. Test Method Std. No. 175.

4.5.2.2 Type II compound. The peel strength of dry leather to leather bonds shall be determined as specified in method 1041.1 of Fed Test Method Std. No. 175. Bonded leather specimens shall also be measured for peel strength after immersion in water at room temperature for one hour and then conditioning at room temperature for 24 hours.

4.5.3 Low temperature flexibility. Select and clean a panel as specified in 4.5.7.1. For type I compound, apply a dry film thickness of 0.002 inch, for type II, apply a dry film of 0.004 inch. Allow 60 minutes air dry between coats, then bake the panel for 24 hours at 105° ± 1° C. (222° ± 2° F.). Cool to room temperature and place in a cold box at -25° ± 1° C. (-13° ± 2°F.) for 30 minutes. Remove the panel and immediately bend, coated side out, through 180° over a 1/8 inch diameter rod. Examine the film for signs of cracking or flaking.

4.5.4 Cellulose nitrate polymer. Apply a coat of the compound to a piece of glass and allow to dry at room temperature. Apply a drop of a 1 percent solution of diphenylamine in 96 percent chemically pure sulfuric acid to the dry film. The immediate apperance of a dark blue color identifies the polymer as cellulose nitrate.

4.5.5 Blushing. Clean a panel of cold rolled low-carbon steel 4 by 6 inches, with benzene and apply, by means of a doctor blade or other suitable device, a coat of the material 0.020 ± 0.002 inch thick when wet, and approximately 3 by 5 inches in area. Immediately place the panel in an atmosphere maintained at 35° C. and 100 percent relative humidity (see 6.4). After 30 minutes have elapsed, remove the panel and examine for evidence of blushing as indicated by streaking or discoloration.

4.5.6 Benzene and chlorinated solvent. Benzene content shall be determined as specified in method 5091 of Fed. Test Method Std. No. 141. To detect the presence of chlorinated solvent in the compound, flame clean a bright copper wire and allow to cool. Dip the cleaned end of the wire into the compound and place it in the flame. A green color indicates the presence of chlorinated solvent.

4.5.7 Water resistance.

4.5.7.1 Aluminum alloy panels. A three by six by 0.020 inch panel conforming to QQ-A-250/5, shall be cleaned with MIL-C-22543 cleaning compound, rinsed with water, and allowed to air dry. Apply two brush coats of the compound to the panel, allowing 60 minutes air dry between coats. Dry the panel for 24 hours at 105° ± 1° C. (222° ± 2° F.) and then cool to room temperature.

4.5.7.2 Procedure. Immerse the panel in distilled water at 25° ± 1° C. (77° ± 2° F.) for 24 hours. Remove the panel after 24 hours, blot, and examine the cellulose nitrate film for softness, clarity, cracking, flaking, or loss of adhesion. If a very slight softening or loss of clarity is noted, re-examine the film after conditioning for one hour at room temperature.

4.5.8 Application to brass (type II, only). Using a doctor blade, apply one or more coats of the compound to a clean, smooth brass panel until a dry film thickness of 0.002 to 0.003 inch is attained. Allow 60 minutes air dry between coats. Place the panel in an air circulating oven at 105° ± 1° C. (222° ± 2° F. for 24 hours. Remove the panel after 24 hours and cool to room temperature. Scrape the test film with a sharp knife blade held at an angle of 30° to the panel. Note whether the film is easy or difficult to remove from the panel. Observe also for film brittleness. A brittle film will powder or chip off in small pieces; a nonbrittle film will strip off in ribbons. Remove the remaining film with acetone or other suitable solvent. Using a bright light and a 10 power magnification, examine the brass for any sign of chemical attack or corrosion.

4.5.9 Cold stability. Transfer a two fluid ounce sample of the compound to a 4 ounce jar. After tightly sealing the jar, place it in a cold box at -25° ± 3° C. (-13 ± 6° F.) for 16 hours. After 16 hours, examine the compound while still in the cold box for signs of gelation, separation, sedimentation, or any other deterioration. Introduce the recommended thinner into the sample while stirring with a spatula and observe for ease of reduction at -25° C. Extreme difficulty in incorporating the thinner into the compound will be evidence that the compound has gelled.

4.5.10 Application to labels (type I only).

4.5.10.1 Panel preparation. Each panel shall be three by six inches and thick enough so that they will not flex under normal handling. One panel shall be fiberboard conforming to class weather-resistant, grade V3s of PPP-B-636; another shall be softwood (coniferpine) conforming to type I of PPP-B-585; and the third shall be birch plywood conforming to NN-P-530, group A, CS35, birch, type I, grade 3-4, water repellant, preservative treated in accordance with TT-W-572, type I or II, composition A.

4.5.10.2 Labels. The label shall be 2 by 4 inches and made from white paper of approximately 40 pound (17 by 22-1000) bond. Each label shall be stamped or printed with several lines of letters using a printing ink conforming to TT-I-559.

4.5.10.3 Application. Apply the compound to obtain a dry film of 0.001 inch on each of the panels specified in 4.5.10.1. Apply the label specified in 4.5.10.2 to each panel and then brush a second coat of the compound over the label.

4.5.10.4 Procedure. After air drying each panel prepared in 4.5.10.3 for 15 minutes, examine each label for legibility. Immediately after examining, try to remove each label by peeling from a corner of the label. Then apply two more brush coats of the compound to the labeled softwood (coniferpine) panel until an overcoated dry film thickness of 0.003 to 0.004 inch is obtained. Air dry 30 minutes between each coat with a final dry time of 16 hours at room temperature. Cut a piece of cheesecloth 1 inch square and place it on the overcoated label. Place a small piece of wood one by one by 1/4 inch over the cheesecloth and set a five pound weight on the wood. Allow the weight to stand on the panel for 24 hours at 25°±2°C. (77° ±4°F.). At the end of 24 hours, remove the cheesecloth and examine the overcoated label for legibility.

4.5.11 Resistance to blocking (type I only). Prepare three labeled plywood panels as specified in 4.5.10.3, and air dry for 24 hours. Place two panels together with the labels contacting each other and place the labeled surface of the third panel on top of the other two panels. Place a one pound weight on the assembled panels and condition at 66° ±1° C. (150° ± 2° F.) for 24 hours. Cool to room temperature. Then seperate the panels from each other, noting any tendency of the panels to adhere to each other.

4.5.12 Accelerated weathering (type I, only). Prepare a labeled plywood panel, as specified in 4.5.10.3. Air dry for two hours and then subject the panel to 72 hours exposure in a weathering machine in accordance with method 6152 of Fed. Test Method Std. No. 141, but without the use of water spray. After 72 hours, remove the panel, condition at room temperature for one hour, and then examine the film for signs of softening, cracking, flaking, loss of adhesion, or appreciable decrease in label legibility.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A, B, or C, as specified (see 6.2).

5.1.1 Level A. The adhesive furnished in quantities as specified (see 6.2), shall be packaged in containers in accordance with table III, as specified herein.

5.1.1.1 Collapsible tubes. The collapsible tubes shall consist of a seamless, cylindrical body (wall) with integral shoulder, and threaded neck. Tubes shall be fabricated of tin-copper alloy, tin-lead alloy, or aluminum and shall have suitable flexible characteristics and an opening which shall permit ready dispensing of the material. Tube walls shall be of uniform thickness and may be treated with an interior protective coating. An inner seal in the form of a dish shall be adhered completely to the mouth of the tube. The tubes shall be provided with a screwcap to protect the contents once the inner seal is punctured. Each tube shall be packaged in a box as specified in 5.1.1.4.

5.1.1.2 Metal cans. Metal cans shall conform to PPP-C-96, type V, class 4, oblong. For level A packaging, external plan B coating and side seam striping shall be required. For levels B and C packaging, plan A coating shall apply.

5.1.1.3 Pails. Pails shall conform to PPP-P-[illegible], type I, class 3, 4, or 5, with pouring device.

5.1.1.4 Paperboard box. The paperboard box shall conform to PPP-B-566, PPP-B-665, or PPP-B-676

5.1.1.5 Fiberboard box. The fiberboard box shall conform to PPP-B-636. A class weather-resistant box shall be utilized for level A requirements and class domestic for level B requirements. The box shall be closed in accordance with the appendix to the box specification.

5.1.1.6 Partitions. Partitions providing separate cells shall be utilized. The partitions shall be fabricated from fiberboard or paperboard, as applicable.

5.1.1.7 Intermediate packaging. Adhesive of like description furnished in quantities as specified in table (see 6.2), shall be intermediate packaged in a box as specified in 5.1.1.4 or 5.1.1.5, as applicable.

5.1.2 Level B. The adhesive shall be packaged as specified in 6.2 and table III.

5.1.3 Level C. The adhesive shall be packaged in accordance with the supplier's commercial practice.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.2.1 Level A. The adhesive furnished in quantities as specified (see 6.2), shall be packed in containers in accordance with table III.

5.2.1.1 Unitized packing. When specified (see 6.2), the fiberboard boxes may be over-packed in close-fitting boxes conforming to PPP-B-585, class 3; PPP-B-591, class II; PPP-B-601, overseas type; PPP-B-621, class 2; or PPP-B-640, class 2. The boxes shall be closed and strapped in accordance with the applicable specification or appendix thereto. The gross weight shall not exceed 200 pounds. Strapping of the fiberboard boxes will not be required when they are over packed.

5.2.2 Level B. The adhesive furnished in quantities as specified (see 6.2), shall be packed in containers in accordance with table III.

5.2.3 Level C. The adhesive shall be packed to insure carrier acceptance and safe delivery at destination in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking.

5.3.1 Civil agencies. In addition to markings required by the contract or order, unit containers, interior packages, and shipping containers shall be marked in accordance with Fed. Std. No 123.

5.3.2 Military agencies. In addition to markings required by the contract or order, unit containers, interior packages, and shipping containers shall be marked in accordance with MIL-STD-129.

5.3.3 Additional marking (all types).

5.3.3.1 All containers (unit, intermediate, and shipping) shall be marked with the following:

(a) DANGER: HIGHLY FLAMMABLE, DO NOT USE NEAR HEAT OR FLAME.
(b) CAUTION: STORE IN A COOL PLACE.
(c) CAUTION: USE WITH ADEQUATE VENTILATION.

5.3.3.2 Unit containers only shall be marked with the following:

(a) CAUTION: REPLACE CAP TIGHTLY AFTER USE.
(b) Directions for use to include but not be limited to (1) thinning instructions for spray application, and for material that has thickened in storage, (as applicable), 2) surface preparation, priming, method of application and bonding, film thickness required, and drying conditions shall be marked on or furnished separately with each unit container.

5.3.3.3 Federal Hazardous Substances Labeling Act. Containers shall also be marked in accordance with the Federal Hazardous Substances Labeling Act (see 3.10).

PACKAGING						PACKING		
UNIT PACKAGE		INTERMEDIATE PACKAGING				LEVEL A and LEVEL B		
		Level A		Level B				
Quantity	Container	Unit Pkg Quantity	Container	Unit Pkg Quantity	Container	Unit Pkgs per Shipping Container	Intermediate packages per shipping container	Shipping container 1/
1 1/2 oz	Tube (see 5.1.1.1)	48	see 5.1.1.7	48	see 5.1.1.7	-	3	see 5.1.1.5
3 3/4 oz	Tube (see 5.1.1.1)	48	see 5.1.1.7	48	see 5.1.1.7	-	3	see 5.1.1.5
3 oz	Tube (see 5.1.1.1)	48	see 5.1.1.7	48	see 5.1.1.7	-	3	see 5.1.1.5
1 pt	Can (see 5.1.1.2)	12	see 5.1.1.6 and 5.1.1.7	12	see 5.1.1.6 and 5.1.1.7	-	4	see 5.1.1.5
1 Gal	Can (see 5.1.1.2)	← NONE →				6	-	see 5.1.1.5
5 Gal	Pail (see 5.1.1.3)	← NONE →				← NONE →		

1/ When specified (see 6.2), unitized packing shall be in accordance with 5.2.1.1

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6. NOTES

6.1 Intended use. Type I compound is intended for use in attaching printed paper labels to shipping containers. Application of additional compound to the top surface of the label will make the label water resistant. Type II compound is intended for use in repairing and mending many materials including glass, metals, leather, textiles, paper, china, and some types of plastics, as well as anchoring glass, metal, and some plastic laboratory equipment.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

(a) Title, number, and date of this specification.
(b) Type of compound.
(c) Size and type of unit container (see 5.1.1).
(d) Quantity required.
(e) Levels of packaging and packing (see 5.1 and 5.2).
(f) Unitized packing, if required (see 5.2.1.1).
(g) Additional data, if required (see 3.1).

6.3 Influences on application techniques. In applying compounds procured under this specification, the using activity should maintain flexibility in its application techniques. For example, variations in temperature and humidity influence drying time. Variations in surface conditions may require cleaning of the surface to remove waxes, oils, or greases. Porous surfaces may require a preliminary coat of adhesive to seal the surface.

6.4 Humidity. The conditions specified in 4.5.5 may be obtained by placing a wet towel, one end of which dips in a beaker of water, in an oven at 35° C. (95° F.).

6.5 Supersession data. This specification includes the requirements for types I and II of MIL-A-388A dated June 9, 1950.

6.5.1 Relationship of MMM-A-105 to superseded specification.

MMM-A-105	Superseded specification
Type I	Identical to type I of MIL-A-388A.
Type II	Identical to type II of MIL-A-388A.

6.6 Toxicity. Any questions regarding possible toxic effects on personnel from contact, or by breathing vapors, shall be referred to the departmental medical authority. In case of Army procurement, the procuring agency will determine that the adhesive and sealing compounds, when used for their intended purposes, are not likely to result in adverse effects on health of personnel. The Surgeon General will act as advisor in those instances where professional medical advice is indicated.

MILITARY CUSTODIANS:

Army-MP
Navy-AS
Air Force-69

Preparing activity:

Navy-AS

Review activities:

Army-GL, MO, MR, MU
Navy-SA, AS
Air Force-60

CIVIL AGENCIES INTEREST:

GSA, IEI, DMS, AGR, JUS, INT

User activities:

Army-CE
Air Force-26

Orders for this publication are to be placed with General Services Administration, acting as an agent for the Superintendent of Documents. See section 2 of this specification to obtain extra copies and other documents referenced herein. Price 10 cents each.